

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning at page 8, line 23 as follows:

2x network device e, where x indicates a device number from "a" to "m"

Please amend the following paragraph beginning at page 12, line 6:

Fig. 3 is a flowchart showing a process of the arithmetic processor 22 in the network device 2b. First, the arithmetic processor 22 substitutes an initial value of zero for a counted value "n" indicating how many times the measurement and the data output have been performed and starts the built-in timer (S1). Then, the arithmetic processor 22 ~~determines~~ waits until it is determined whether the "A output" is started to be output on the bus 1 (S2). If the controller 23 detects that the "A output" is started to be output on the bus 1, the arithmetic processor 22 holds the value of the built-in timer as "tn+1" (S3). The arithmetic processor 22 calculates a difference between the value "tn+1" and the detected timing "tn", which is the timing when the "A output" is started, as a measurement cycle "T" (S4).

Please amend the following paragraphs beginning at page 17, line 8:

First, the arithmetic processor 22 substitutes an initial value of zero for a counted value "n" indicating how many times the measurement and the data output have been performed and starts the built-in timer (S10). Then, the arithmetic processor 22 ~~determines~~ waits until it is determined whether the "A output" is started to be output on the bus 1 (S20). If the controller 23 detects that the "A output" is started to be output on the bus 1, the arithmetic processor 22 holds the value of the built-in timer as "tn+1" (S30).

The arithmetic processor 22 reads out the information d1 and the information d2 concerning the measurement timing and waits for the value of the built-in timer to become "tn+1 + d1" (S40→S50). If the value of the built-in timer becomes "tn+1 + d1", the arithmetic processor 22 performs the measurement ("B measurement 1") and the calculation ("B calculation 1") (S60). Then, the arithmetic processor 22 determines whether the bus is idle. If the arithmetic processor 22 determines that the bus is not idle, the arithmetic processor 22 waits for the bus to be idle and outputs the measurement data "B output" on the bus 1 (S70→S80).

In preparation for the subsequent measurement and data output, the arithmetic processor 22 increments the counted value "n" by one and waits for start the subsequent "A output" (S90→S20).

Please amend the following paragraphs beginning at page 20, line 21:

First, the arithmetic processor 22 substitutes an initial value of zero for a counted value "n" indicating how many times the measurement and the data output have been performed and starts the built-in timer (S100). Then, the arithmetic processor 22 determines waits until it is determined whether the "A output" is started to be output on the bus 1 (S200). If the controller 23 detects that the "A output" is started to be output on the bus 1, the arithmetic processor 22 holds the value of the built-in timer as "tn+1" (S300).

The arithmetic processor 22 reads out the information d1n and the information d2n concerning the measurement timing from the "A output" and calculates a measurement cycle "T" by $T = (tn + d1n) - (tn-1 + d1n-1)$ (S400→S500). Here, "tn" denotes a timing when start of the previous "A output" is detected, "tn-1" denotes a timing when start of the second previous "A output" is detected, and "d1n" denotes a value read from the "A output" output at the timing "tn+1.

Then, the arithmetic processor 22 waits for the value of the built-in timer to become " $(tn + d1n + T)$ " (S600). If the value of the built-in timer becomes " $(tn + d1n + T)$ ", the arithmetic processor 22 performs the measurement ("B measurement 1") and the calculation ("B calculation 1") (S700). The arithmetic processor 22 determines whether the bus is idle. If the arithmetic processor 22 determines that the bus is not idle, the arithmetic processor 22 waits for the bus to be idle and outputs the measurement data "B output" on the bus 1 (S800→S900).

In preparation for the subsequent measurement and data output, the arithmetic processor 22 increments the counted value "n" by one and waits for start of the subsequent "A output" (S1000→S200).